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A new species of *Chilothrips* Hood, 1916 (Thysanoptera: Thripidae) from China

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Abstract: *Chilothrips hangzhouensis* sp. nov. is described and illustrated in detail. This new species is similar to *C. strobilus* but can be distinguished from the latter by the two pairs of ocellar setae and the absent of the pore plates on abdominal sternites III–IV (*C. strobilus* has three pairs of ocellar setae and abdominal sternites III–IV have pore plates).

Key words: Thripinae; *Chilothrips hangzhouensis*; taxonomy; *Pinus* pollen

中国膨锥蓟马属一新种（缨翅目：蓟马科）

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摘要：记述中国膨锥蓟马属 1 新种：杭州膨锥蓟马 *Chilothrips hangzhouensis* sp. nov.。该新种和 *C. strobilus* 近似，但本种单眼鬃 2 对，腹节 III–IV 节腹板无腺域（*C. strobilus* 单眼鬃 3 对，腹节 III–IV 节腹板有腺域）。

关键词：蓟马亚科；杭州膨锥蓟马；分类；松花粉

Introduction

Chilothrips Hood is a small genus of Thripinae, and was erected by Hood in 1916 based on *Chilothrips pini* as the type species. This genus belongs to the *Anaphothrips* genus-group which lacks long setae on the posterior margin of pronotum (Mirab-balou *et al*. 2012). To date, 6 species of *Chilothrips* have been reported worldwide (Hood 1916; Stannard 1973; Kudo 1978; Tong & Zhang 1994; Mirab-balou *et al*. 2012). Among these species, except for *C. jiuxiensis* Mirab-balou, Chen & Tong that was collected from *Camellia sinensis* and *Chilothrips rotrameli* collected from oak duff and moss, all other *Chilothrips* were collected from Gymnospermae (*Cupressus* and *Pinus*). In the present paper, an additional species collected from *Pinus* pollen is found to be new to science.

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Material and methods

Preserved slide specimens were used in this study. Slides were prepared following the method of Zhang *et al.* (2006). Specimens were observed with the help of an EVOS digital inverted microscope; photographs were taken using a Nikon Y-IDT microscope with a Q-image CCD; images were produced using the software Synoptic Automontage. Specimens studied are from Entomological Museum, Northwest A&F University, Yangling, Shaanxi Province (NWAFU), and the Department of Entomology, South China Agricultural University, Guangzhou, Guangdong Province (SCAU). All measurements described in this paper are in micrometers (μm).

Type specimens of this new species are deposited in the Entomological Museum of Northwest A&F University (NWAFU), Yangling, Shaanxi, China.

Taxonomy

Genus *Chilothrips* Hood, 1916

Chilothrips Hood, 1916; Stannard, 1973; Kudo, 1978; Tong & Zhang, 1994; Mirab-balou *et al.*, 2012.

Type-species: *Chilothrips pini* Hood (Maryland), designated and monobasic.

Diagnosis. Adults body yellow to yellowish brown. Females with head swollen, ocellar setae pair III long. Antennae 8-segmented, antennal segments III and IV with forked sense cones, segment VI sometimes partially or completely subdivided by a thin suture. Mouth-cone extending beyond posterior margin of pronotum. Pronotum longer than wide, with only one pair of long setae. Tibiae with spur-like setae. Forewings with two longitudinal veins. Abdominal tergite VIII without comb, segment X tube-like.

Distribution. China; USA; Japan.

Remarks. This genus is closely related to *Oxythrips* Uzel except for the swollen head and elongate mouth-cone in females and two pairs of spine-like setae on abdominal tergite IX in males.

Checklist of the genus *Chilothrips* worldwide

C. hangzhouensis sp. nov. Holotype: ♀. Type specimens preservation place: China (Northwest A&F University, Shaanxi). From *Pinus* pollen.

C. jiuxiensis Mirab-balou, Chen & Tong, 2012. Holotype: ♀. Type specimens preservation place: China (Zhejiang Univeisity, Zhejiang). On *Camellia sinensis.*

C. occidentalis Stannard, 1973. Holotype: ♀. Type specimens preservation place: USA (Illinois Natural History Survey, Champaign). On *Cupressus pygmaea.*

C. pini Hood, 1916. Holotype: ♀. Type specimens preservation place: USA (National Museum of Natural History, Smithsonian Institution, Washington DC). On debris from tree hole in cottonwood.

C. rotrameli Stannard, 1973. Holotype: ♀. Type specimens preservation place: USA (Illinois Natural History Survey, Champaign). From oak duff and moss.

C. strobilus Tong & Zhang, 1994. Holotype: ♀. Type specimens preservation place: China (South China Agricultural University, Guangzhou). From *Pinus tabulaeformis* cones.

C. yamatensis Kudo, 1978. Holotype: ♀. Type specimens preservation place: Japan. From *Pinus thunbergii.*

Chilothrips hangzhouensis **sp. nov.** (Figs. 1–9)

Female (macropterous). Body length 1.6–1.7 mm, body color yellowish brown to light brown, mouth-cone much darker; antennal segments I and II light yellowish-brown, III–VIII brown except the base portion of segment III (Fig. 6). Fore-wings light brown.

Head. Females with head swollen. Two pairs of ocellar setae present, pair I absent, pair III is very long, locates on the lines of inner margin of the ocellar triangle (Fig. 2). Mouth-cone elongate, extending beyond posterior margin of pronotum. Maxillary palpi 3-segmented (Fig. 3). Antennae 8-segmented, length I 28, II 37, III 46, IV 43, V 38, VI 49, VII 11, VIII 15, antennal segments III and IV with forked sense cones, segment VI is the longest, without a suture (Fig. 6).

Thorax. Pronotum nearly smooth, only one pair of posteroangular setae well-developed (Fig. 2). Mesonota with transverse striation, and metanota with irregular reticulate sculpture. Median pair of metanotal setae placed not far behind anterior margin, one pair of campaniform sensilla at the fore-middle (Fig. 4). Mesofurcal spinula present, metafurca without spinula. Fore vein with 2 distal setae. Hind-tibiae with two spur-like setae (Fig. 1).

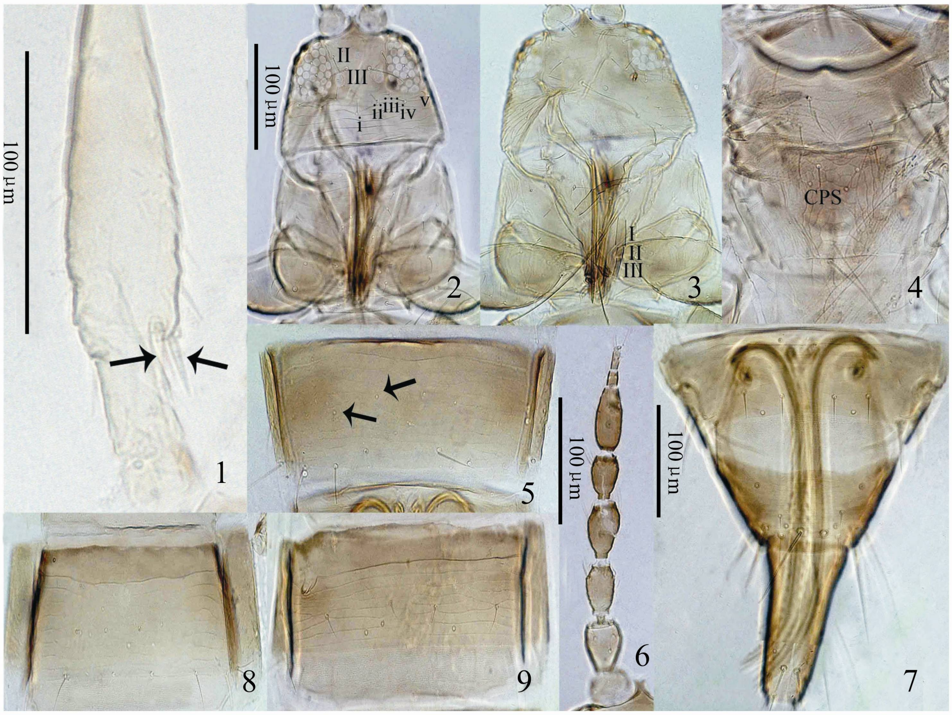

Figure 1–9. *Chilothrips hangzhouensis* sp. nov. 1. Hind-tibia; 2. Head and pronotum dorsal view; 3. Head and pronotum ventral view; 4. Meso- and metanota; 5. Abdominal sternites VII; 6. Antenna; 7. Abdominal tergites VIII–X; 8. Abdominal sternite IV; 9. Abdominal tergite V.

Abdomen. Abdominal tergites and sternites with fine transverse striation (Figs. 8, 9), tergite IX and X smooth (Fig. 7). Sternites with accessory setae, but no pore plate. Median setae of sternite VII in front of posterior margin (Fig. 5). Tergite VIII without posterior comb. Major setae on tergite IX not extending to the posterior sensoria of segment X (the tube).

Segment X tube-like, terminal setae normal, not enlarged (Fig. 7).

Measurements. Body length 1694; head length 118, width 161; eye length 50, width 39; ocellar setae II 15, III 42; postoculars I 18, II 11, III 20, IV 18, V 9. Maxillary palpi length 25, 11, 20, respectively. Length (width) of antennal segments: I 28 (33), II 37 (22), III 46 (19), IV 43 (21), V 38 (19), VI 49 (21), VII 11, VIII 15. Pronotum length 161, median width 202; posteroangulars, inner 61, outer 11. Forewing length 678, width 68 at middle. Abdominal segment X length 133.

Male. Unknown.

Etymology. The specific epithet is derived from the type locality.

Holotype. ♀, **China,** Zhejiang, VII-2012, collected from *Pinus* pollen; **Paratype.** 1♀, same data as holotype.

Discussion. This new species is very similar to *C. strobilus* but can be distinguished from the latter by the two pairs of ocellar setae and the absence of the pore plates on abdominal sternites III–IV (*C. strobilus* with three pairs of ocellar setae, abdominal sternites III–IV with pore plates).

Host plant. *Pinus* spp.

Distribution. China (Zhejiang).

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